<u>IN THE CLAIMS</u>

The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

Claims 1-85. (Canceled)

Claim 86. (Currently Amended): A method of data packet transmission from a first network to a second network via a communication device interconnecting the first and second networks, <u>one of</u> the first ~~network~~ <u>and second networks</u> being a communication bus transporting data packets in isochronous and asynchronous modes, the <u>other one of the first and</u> second ~~network~~ <u>networks</u> being a packet-switching network transporting data packets in connected and non-connected modes, the method comprising the steps of:

<u>receiving data packets from the first network in a reception memory of the communication device;</u>

~~allocating internal resources~~ <u>reserving a storage area internal to the communication device, wherein the reserved internal storage area is</u> adapted to ~~a receiving~~ <u>the</u> mode in which data packets are received from the first network; ~~and~~

<u>storing the received data packets in the reserved internal storage area of the communication device; and</u>

transmitting data packets to the second network through the <u>reserved</u> internal ~~allocated resources~~ <u>storage area</u>, in a mode associated with the receiving mode ~~by using the reserved resources~~;

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wherein in a case in which the isochronous mode is associated with the connected mode, ~~said allocating~~ the reserving step is performed before the communication device receives data packets from the first network, and in a case in which the asynchronous mode is associated with the non-connected mode, ~~said allocating~~ the reserving step is performed after the communication device receives data packets from the first network.

Claim 87. (Currently Amended): A method according to claim 86, further comprising, in the case of the isochronous mode, a previous step of reserving resources on the second network, ~~wherein, in a case of the isochronous mode, said allocating step includes allocating memory areas associated with resources previously reserved on the second network~~.

Claims 88-96. (Canceled).

Claim 97. (Currently Amended): A communication device interconnecting first and second networks, for transferring data packets from the first network to the second network, ~~the communication device interconnecting the two networks,~~ one of the first and second ~~network~~ networks being a communication bus transporting data packets in isochronous and asynchronous modes, the other one of the first and second ~~network~~ networks being a packet-switching network transporting data packets in connected and non-connected modes, said communication device comprising:

a reception memory in the communication device for receiving data packets from the first network;

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~~allocating~~ reserving means for ~~allocating internal resources~~ reserving a storage area internal to the communication device, wherein the reserved internal storage area is adapted to ~~a receiving~~ the mode in which data packets are received from the first network;

storing means for storing the received data packets in the internal storage area of the communication device; and

transmitting means for transmitting data packets to the second network through the reserved internal ~~allocated resources~~ storage area, in a mode associated with the receiving mode; and

~~reserving means for reserving resources on the second network in a case of transmission of data packets in the isochronous mode;~~

wherein, in a case in which the isochronous mode is associated with the connected mode, the ~~allocating~~ reserving means ~~allocates memory areas associated with resources reserved on the second network~~ reserves the storage area before the reception of data packets from the first network, and in a case in which the asynchronous mode is associated with the non-connected mode, the ~~allocating~~ reserving means ~~allocates intermediate storage areas~~ reserves the storage area after the reception of data packets from the first network.

Claims 98-107. (Canceled).

Claim 108. (Currently Amended): A method according to claim 87, wherein the resources previously reserved on the second network include at least channel numbers

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so that ~~a memory~~ the reserved internal storage area ~~allocated as an internal resource~~ is

associated with a channel number.

Claim 109. (Canceled).

Claim 110. (Currently Amended): A communication device according to

claim ~~97~~ 117, wherein the resources reserved on the second network include at least

channel numbers so that ~~a memory~~ the reserved internal storage area ~~allocated as an~~

~~internal resource~~ is associated with a channel number.

Claim 111. (New): A method according to claim 87, wherein, in a case of

the isochronous mode, the reserving step of reserving a storage area internal to the

communication device is performed on the basis of the resources previously reserved on

the second network.

Claim 112. (New): A method according to claim 87, wherein, in a case of

the isochronous mode, the method further includes a step of associating a reserved internal

storage area with the resources previously reserved on the second network.

Claim 113. (New): A method according to claim 86, wherein a processing

unit internal to the communication device is associated with a reserved internal storage

area adapted to the asynchronous mode.

Claim 114. (New): A method according to claim 113, further comprising a storing step of intermediate storing of asynchronous data packets in an intermediate storage so that the communication device may receive further data packets even when the processing unit cannot process data immediately.

Claim 115. (New): A method according to claim 114, wherein the intermediate storing step of storing asynchronous data packets is performed before storing said data packets in the reserved internal storage area.

Claim 116. (New): A method according to claim 114, further comprising a step of transferring asynchronous data packets from the intermediate storage to the reserved internal storage area.

Claim 117. (New): A communication device according to claim 97, further comprising reserving means for reserving resources on the second network in case of transmission of data packets in the isochronous mode.

Claim 118. (New): A communication device according to claim 117, wherein, in the case of the isochronous mode, the reserving means for reserving the storage area internal to the communication device are adapted to take into account the resources reserved on the second network.

Claim 119. (New): A communication device according to claim 117, further

comprising means for associating a reserved internal storage area with the resources

reserved on the second network, in the case of the isochronous mode.

Claim 120. (New): A communication device according to claims 97,

wherein a processing unit internal to the communication device is associated with a

reserved internal storage area adapted to the asynchronous mode.

Claim 121. (New): A communication device according to claim 120, further

comprising means for intermediate storing asynchronous data packets in an intermediate

storage so that the communication device may receive data even when the processing unit

is not able to process data immediately.

Claim 122. (New): A communication device according to claim 121, further

comprising means for transferring asynchronous data packets from the intermediate storage

to the adapted reserved storage area.

Claim 123. (New): An information-storage means, completely or partially

removable, which can be read by a computer or a processor containing instructions for a

computer program, wherein it allows implementation of the method according to claim 86.

Claim 124. (New): An information-storage means, which can be read by a

computer or a processor, containing data originating from the implementation of the

method according to claim 86.

Claim 125. (New): A computer program loadable into a programmable device, including sequences of instructions for implementing the steps of the method according to claim 86, when said program is run on the programmable device.